

CLAIMS

What is claimed is:

1. A base subunit for use in a wireless spread spectrum communication system comprising:

- an antenna for receiving a signal over a first frequency;
- a plurality of mixers for mixing the received signal with a plurality of chipping sequences to produce a plurality of despread voice signals;
- a combiner combining the despread signals and a voice signal generated at the base subunit;
- a product device for mixing the combined signal with a chipping sequence; and
- an antenna for transmitting the mixed combined signal at a second frequency.

2. The base subunit of claim 1 further comprising a demodulator for demodulating the despread voice signals prior to the combining.

3. The base subunit of claim 1 wherein the combiner comprises a first and second combiner, the first combiner combines the despread signals and the second combiner combining the combined despread signals with the voice signal generated at the base subunit.

4. The base subunit of claim 1 further comprising an analog to digital converter for converting the combined signal into a digital signal.

5. The base subunit of claim 3 wherein the output of the first combiner is a combined voice signal of a plurality of remote units.

6. A base subunit for use in a wireless spread spectrum communication system comprising:

- an antenna for receiving a signal over a first frequency;
- a plurality of matched filters for mixing the received signal to produce a plurality of despread voice signals;
- a combiner combining the despread signals and a voice signal generated at the base subunit;
- a product device for mixing the combined signal with a chipping sequence; and
- an antenna for transmitting the mixed combined signal at a second frequency.

7. The base subunit of claim 6 further comprising a demodulator for demodulating the despread voice signals prior to the combining.

8. The base subunit of claim 6 wherein the combiner comprises a first and second combiner, the first combiner combines the despread signals and the second combiner combining the combined despread signal with the voice signal generated at the base subunit.

9. The base subunit of claim 5 further comprising an analog to digital converter for converting the combined signal into a digital signal.

10. The base subunit of claim 8 wherein the output of the first combiner is a combined voice signal of a plurality of remote units.

11. A base subunit for use in a wireless spread spectrum communication system comprising:

- means for receiving a signal over a first frequency;
- means for producing a plurality of despread voice signals using the received signal;

means for combining the despread signals and a voice signal generated at the base subunit;

means for mixing the combined signal with a chipping sequence; and

means for transmitting the mixed combined signal at a second frequency.

12. The base subunit of claim 11 wherein the producing means is a plurality of mixers.

13. The base subunit of claim 11 wherein the producing means is a plurality of matched filters.

14. The base subunit of claim 11 comprising a demodulator for demodulating the despread voice signals prior to the combining.

15. The base subunit of claim 11 wherein the combining means comprises a first and second combiner, the first combiner combines the despread signals and the second combiner combining the combined despread signals with the voice signal generated at the base subunit.

16. The base subunit of claim 11 further comprising an analog to digital converter for converting the combined signal into a digital signal.

17. The base subunit of claim 15 wherein the output of the first combiner is a combined voice signal of a plurality of remote units.